

LAB - 5

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LAB: CSE4002 Mobile Application Development LAB

Design an App that displays 5 random numbers of cards when select cards button is pressed in the TextView, on clicking sort button, these numbers need to be sent to second activity. The sorted numbers need to be displayed in TextView and sum of the numbers need to be displayed.

CODE -

MainActivity.Java

```
package com.example.play_cards_19bce7230;

import androidx.appcompat.app.AppCompatActivity;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import java.util.Random;

import android.os.Bundle;

import android.content.Intent;

public class MainActivity extends AppCompatActivity {

    EditText t1,t2,t3,t4,t5,t7;

    Button b1,b2;

    int[] cards = new int[5]; Random rand = new Random();
```

```
@Override

protected void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);

    setContentView(R.layout.activity_main);


    t1 = findViewById(R.id.et1);

    t2 = findViewById(R.id.et2);

    t3 = findViewById(R.id.et3);

    t4 = findViewById(R.id.et4);

    t5 = findViewById(R.id.et5);

    t7 = findViewById(R.id.et7);

    b1 = findViewById(R.id.b1);

    b2 = findViewById(R.id.b2);


    b1.setOnClickListener(new View.OnClickListener() { @Override
public void onClick(View v) { for (int k = 0; k < 5; k++) {

        cards[k] = rand.nextInt(14);

    }

        t1.setText(String.valueOf(cards[0]));

    t2.setText(String.valueOf(cards[1]));


    t3.setText(String.valueOf(cards[2]));

    t4.setText(String.valueOf(cards[3]));

    t5.setText(String.valueOf(cards[4]));

    }
```

```

    });

    b2.setOnClickListener(new View.OnClickListener() { @Override
    public void onClick(View v) {

Intent i = new Intent(getApplicationContext(), MainActivity2.class);

        i.putExtra("Card1", t1.getText().toString());

        i.putExtra("Card2", t2.getText().toString());

        i.putExtra("Card3", t3.getText().toString());

        i.putExtra("Card4", t4.getText().toString());

        i.putExtra("Card5", t5.getText().toString());

        startActivityForResult(i, 2);

    }

    });
}

```

```

protected void onActivityResult(int requestCode, int resultCode, Intent
data)
{

    super.onActivityResult(requestCode, resultCode, data);

    if (requestCode == 2) {

        if(resultCode == RESULT_OK)

        { t1.setText(data.getExtras().getString("c1"));

          t2.setText(data.getExtras().getString("c2"));

          t3.setText(data.getExtras().getString("c3"));

          t4.setText(data.getExtras().getString("c4"));

```

```

        t5.setText(data.getExtras().getString("c5"));

        t7.setText(data.getExtras().getString("sum"));

    }

}

}

}

```

XML Code

```

<?xml version="1.0" encoding="utf-8"?>

<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:app="http://schemas.android.com/apk/res-auto"

    xmlns:tools="http://schemas.android.com/tools"

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    tools:context=".MainActivity">

    <EditText

        android:id="@+id/et1"

        android:layout_width="0dp"

        android:layout_height="47dp"

        android:layout_marginStart="16dp"

        android:layout_marginEnd="7dp"

        android:ems="10"

        android:inputType="textPersonName"

        app:layout_constraintBaseline_toBaselineOf="@+id/et2"
    >

```

```
app:layout_constraintEnd_toStartOf="@+id/et2"
app:layout_constraintStart_toStartOf="parent" />
```

```
<EditText
```

```
    android:id="@+id/et2"
    android:layout_width="0dp"
    android:layout_height="47dp"
    android:layout_marginTop="113dp"
    android:layout_marginEnd="8dp"
    android:ems="10"
    android:inputType="textPersonName"
    app:layout_constraintEnd_toStartOf="@+id/et3"
    app:layout_constraintStart_toEndOf="@+id/et1"
    app:layout_constraintTop_toTopOf="parent" />
```

```
<EditText
```

```
    android:id="@+id/et3"
    android:layout_width="69dp"
    android:layout_height="48dp"
    android:layout_marginEnd="10dp"
    android:ems="10"
    android:inputType="textPersonName"
    app:layout_constraintBaseline_toBaselineOf="@+id/et2"
    app:layout_constraintEnd_toStartOf="@+id/et4"
    app:layout_constraintStart_toEndOf="@+id/et2" />
```

<EditText

```
    android:id="@+id/et4"

    android:layout_width="0dp"

    android:layout_height="0dp"

    android:layout_marginEnd="9dp"

    android:ems="10"

    android:inputType="textPersonName"

    app:layout_constraintBottom_toBottomOf="@+id/et1"

    app:layout_constraintEnd_toStartOf="@+id/et5"

    app:layout_constraintStart_toEndOf="@+id/et3"

    app:layout_constraintTop_toTopOf="@+id/et1" />
```

<EditText

```
    android:id="@+id/et5"

    android:layout_width="0dp"

    android:layout_height="47dp"

    android:layout_marginEnd="16dp"

    android:ems="10"

    android:inputType="textPersonName"

    app:layout_constraintBaseline_toBaselineOf="@+id/et4"

    app:layout_constraintEnd_toEndOf="parent"

    app:layout_constraintStart_toEndOf="@+id/et4" />
```

<TextView

```
    android:id="@+id/et6"
```

```
    android:layout_width="68dp"

    android:layout_height="40dp"

    android:layout_marginStart="32dp"

    android:text=" SUM "

    android:textColor="@color/black"

    android:textSize="24sp"

    app:layout_constraintBottom_toBottomOf="parent"

    app:layout_constraintStart_toStartOf="parent"

    app:layout_constraintTop_toTopOf="parent"

    app:layout_constraintVertical_bias="0.72" />
```

<EditText

```
    android:id="@+id/et7"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_marginEnd="60dp"

    android:layout_marginBottom="188dp"

    android:ems="10"

    android:inputType="textPersonName"

    app:layout_constraintBottom_toBottomOf="parent"

    app:layout_constraintEnd_toEndOf="parent" />
```

<Button

```
    android:id="@+id/b1"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"
```

```

        android:text="SELECT CARDS"

        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.184"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.534" />

```

```
<Button
```

```

        android:id="@+id/b2"

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="204dp"
        android:text="SORT"

        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.736"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/et3" />

```

MainActivity2.java

```

package com.example.play_cards_19bce7230;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.os.Bundle;

```



```
import android.view.View;

import android.widget.Button;

import android.widget.EditText;


import android.os.Bundle;


public class MainActivity2 extends AppCompatActivity {

    EditText c1,c2,c3,c4,c5;

    Button b3; String temp; int sum = 0;

    String[] sortedCards = new String[5];

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main2);

        Bundle extras = getIntent().getExtras();

        c1 = findViewById(R.id.et11);

        c2 = findViewById(R.id.et12);

        c3 = findViewById(R.id.et13);

        c4 = findViewById(R.id.et14);

        c5 = findViewById(R.id.et15);

        b3 = findViewById(R.id.b11);

        String card1 = extras.getString("Card1");

        String card2 = extras.getString("Card2");


        String card3 = extras.getString("Card3");

        String card4 = extras.getString("Card4");
```



```

        b3.setOnClickListener(new View.OnClickListener() { @Override

        public void onClick(View v) {

            Intent i = new Intent(getApplicationContext(), MainActivity.class);

            i.putExtra("c1", sortedCards[0]);

            i.putExtra("c2", sortedCards[1]);

            i.putExtra("c3", sortedCards[2]);

            i.putExtra("c4", sortedCards[3]);

            i.putExtra("c5", sortedCards[4]);

            i.putExtra("sum", String.valueOf(sum));

            setResult(RESULT_OK, i);

            finish();

        }

    });

}

```

XML Code -

```

<?xml version="1.0" encoding="utf-8"?>

<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:app="http://schemas.android.com/apk/res-auto"

    xmlns:tools="http://schemas.android.com/tools"

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    tools:context=".MainActivity2">

<EditText

    android:id="@+id/et11"

```

```
    android:layout_width="48dp"

    android:layout_height="44dp"

    android:layout_marginStart="16dp"

    android:layout_marginTop="296dp"

    android:ems="10"

    android:inputType="textPersonName"

    app:layout_constraintStart_toStartOf="parent"

    app:layout_constraintTop_toTopOf="parent" />
```

```
<EditText

    android:id="@+id/et12"

    android:layout_width="48dp"

    android:layout_height="45dp"

    android:layout_marginStart="24dp"

    android:ems="10"

    android:inputType="textPersonName"

    app:layout_constraintBottom_toBottomOf="parent"

    app:layout_constraintEnd_toStartOf="@+id/et13"

    app:layout_constraintHorizontal_bias="0.0"

    app:layout_constraintStart_toEndOf="@+id/et11"

    app:layout_constraintTop_toTopOf="parent"

    app:layout_constraintVertical_bias="0.434" />
```

```
<EditText

    android:id="@+id/et13"

    android:layout_width="48dp"
```

```
android:layout_height="45dp"

android:layout_marginStart="4dp"

android:ems="10"

android:inputType="textPersonName"

app:layout_constraintBottom_toBottomOf="parent"

app:layout_constraintStart_toStartOf="@+id/b11"

app:layout_constraintTop_toTopOf="parent"

app:layout_constraintVertical_bias="0.434" />
```

<EditText

```
android:id="@+id/et14"

android:layout_width="48dp"

android:layout_height="45dp"

android:layout_marginStart="36dp"

android:layout_marginTop="296dp"

android:ems="10"

android:inputType="textPersonName"

app:layout_constraintStart_toEndOf="@+id/et13"

app:layout_constraintTop_toTopOf="parent" />
```

<EditText

```
android:id="@+id/et15"

android:layout_width="48dp"

android:layout_height="44dp"

android:layout_marginStart="28dp"

android:layout_marginTop="296dp"
```

```
android:ems="10"

android:inputType="textPersonName"

android:visibility="visible"

app:layout_constraintStart_toEndOf="@+id/et14"

app:layout_constraintTop_toTopOf="parent" />
```

```
<Button
```

```
    android:id="@+id/b11"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_marginBottom="256dp"

    android:text="REPLY"

    app:layout_constraintBottom_toBottomOf="parent"

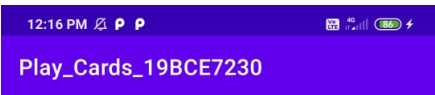
    app:layout_constraintEnd_toEndOf="parent"

    app:layout_constraintHorizontal_bias="0.498"

    app:layout_constraintStart_toStartOf="parent" />
```

```
</androidx.constraintlayout.widget.ConstraintLayout>
```

OUTPUT -



SELECT CARDS

SORT

SUM _____



SELECT CARDS

SORT

SUM _____





1 5 10 11 12

1 5 10 11 12

REPLY

SELECT CARDS

SORT

SUM 39

